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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,917	07/20/2000	Toshio Nomura	49982(551)	3874

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BOSTON, MA 02205

EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2622

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/619,917	<b>Applicant(s)</b> NOMURA ET AL.	
	<b>Examiner</b> Nhan T. Tran	<b>Art Unit</b> 2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-3 & 6-10 have been considered but are moot in view of the new grounds of rejection.

The following new ground of rejections are based on new interpretations of the applicant's claimed invention and previously cited Christian's reference which includes several features *inherently* disclosed therein as analyzed below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6, 7 & 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Christian et al. (US 6,421,462 B1).

Regarding claim 1, Christian discloses an image pickup apparatus (Fig. 1) taking a first image including *only* a background but not an object (a background image 42; Fig. 3) and a second image including the object (a background including an object

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image 44; Fig. 3), and having a shutter button for releasing a shutter (see col. 9, lines 59-64 and col. 7, lines 49-63, wherein "a shutter button" is inherent; it is either located in the camera 12 or on image processing system 16 in order for the imaging apparatus to function as disclosed);

a time measuring portion, measuring a time after said button is pressed (see Fig. 1 and col. 7, lines 49-63; wherein the time measuring portion is represented by an inherent image sensor controller which provides measurement of 1/30 seconds so as to output a frame rate at 30 frames/sec after the shutter button is pressed as disclosed in col. 8, lines 9-14);

an output selecting portion (14, 16 shown in Fig. 1) outputting **only a single image** taken as said first image (the single background image 42 shown in Fig. 3 is taken as one frame in 1/30 sec.) when a first predetermined period of time is measured (1/30 sec.) by said time measuring portion and outputting an image taken as said second image (the background including the object 44 shown in Fig. 3 is taken as one frame in another 1/30 sec.) when a second predetermined period of time is further measured (another 1/30 sec.) by said time measuring portion after the first period of time (see Fig. 3; col. 9, lines 59-64 and col. 8, lines 9-14), wherein the first image is updated by using an image of a region other than the object region of the second image every time a prescribed period (i.e., 5 seconds) is elapsed (see col. 9, lines 11-20 and col. 8, lines 55-67, wherein the background image 42 is updated by using the background portion of the image 44 without using the object area, e.g., the person, after

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a prescribed period of 5 seconds or every one or more captured source image 44 is elapsed).

Regarding claim 2, Christian further discloses a region extracting portion (combined blocks 18-26; Fig. 1) using said first and second images for outputting information of an object region of said second image; and a recording portion (memory 31; Fig. 1, col. 7, line 64 – col. 8, line 5) recording positional information data (i.e., the person's figure represented by pixel signals) of said object region, and one of data representing said second image and image data included in said object region onto a recording region (see Christian, Figs. 3-7, col. 10, line 10 – col. 14, line 67).

Regarding claim 6, see the analysis of claim 2.

Regarding claim 7, as seen in col. 7, lines 49-63 and col. 8, lines 6-14, the imaging apparatus in Christian also comprises a notifying portion (an inherent image sensor controller) for notifying a timing (a clock cycle of 1/30 sec.) at which pickup of said first image is finished (at the end of 1/30 sec.) and a timing at which pickup of said second image is started (at start of another clock cycle of 1/30 sec.).

Regarding claim 10, Christian discloses all limitations of claim 10 as analyzed in claim 1.

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3. Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christian et al. (US 6,421,462 B1) in view of Aono et al. (US 5,267,333).

Regarding claims 8 & 9, Christian is silent about recording image data in a compressed form. However, Aono teaches that image data of background and foregrounds or objects are recorded in compressed form so as to reduce quantity of data used in image synthesis without impairing the quality of image. See Aono, col. 3, lines 1-22.

Therefore, it would have been obvious to one of ordinary skill in the art to implement a compression unit in the apparatus of Christian to compress image data before recording onto the recording portion so that quantity of data used in image synthesis would be reduced to save memory space without impairing the quality of the image as taught by Aono.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christian et al. (US 6,421,462 B1) in view of Parulski et al. (US 5,914,748).

Regarding claim 3, as analyzed in claim 2, Christian discloses a region extracting portion using said first and second images for outputting positional information of an object (the person's figure) of the second image, and a recording portion for recording image data.

Christian does not teach an image composing portion replacing an image in a region other than the object region of said second image with a prepared background image, and recording data of the image composed by said image composing portion onto a recording medium. Parulski teaches an imaging apparatus in which an image composing portion is implemented to replace a background image (a background region other than an object region) with a prepared background (selected from pre-stored background image in step 30; Fig. 1) after the object is extracted from the background so as to create a new composite image (step 26) and record the new composite image into a recording medium (memory or hard drive). See Parulski, Fig. 1 and col. 2, lines 31-49.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Christian and Parulski to arrive at the Applicant's claimed invention so that an object image would be quickly and easily composed with any pre-stored background suitable for creating virtual photography without requiring a special colored background nor an experienced user as suggested by Parulski, col. 1, lines 31-35.

### ***Conclusion***

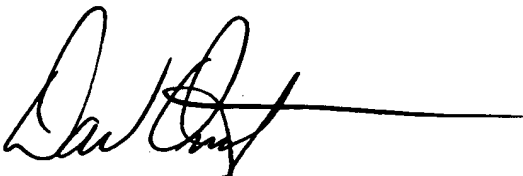
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT.



DAVID OMETZ  
SUPERVISORY PATENT EXAMINER